

Requirements for Laboratory Experiment and Reports

EE 100AB

The grades for the laboratory component of this course consists of three part:

- (45%) Successful completion of the required procedures and acquisition of the data.
- (45%) Reports of the results from the experiments, following the guidelines below.
- (10%) Proper laboratory conduct (following safety rules, clean up after yourself, proper use of equipment).

Upon the completion of an experiment, *the results must be demonstrated to the Teaching Assistant*. Otherwise, the report will not be accepted.

All laboratory experiment reports should be typewritten and consist of the following.

Title page: Title of the experiment, date performed, you and your partner's name. The TA will check on the title page whether the experiment was successful completed and demonstrated to him. If not, the report will be returned ungraded.

- 1. Objective:** State clearly the objective of the experiment.
- 2. Theoretical Analysis:** Present the theoretical analysis of the problem. Whenever applicable, you should use SPICE program to simulate the experiment.
- 3. Experiment Procedures and Data:** State what you did in the laboratory, the equipment used, and present the data from the experiment in a well-organized way, such as tables and figures. All tables and figures should be numbered with short titles. They should also be referred to in the text, e.g., "The measurements are given in Figure 3, where the solid line is the measured diode voltage, and the dashed line is the SPICE simulation data."
- 4. Analysis of the Results:** Analyze the data, compare the data with your theoretical analysis in section 2. Explain any interesting phenomena observed in the experiment, and any disagreement with theoretical analysis.
- 5. Conclusion:** Summarize what you learned from the experiment. Compare the data from the experiment with analysis and simulation when appropriate.
- 6. References:** List the sources of the theory and data (e.g., equipment specifications) used in the experiment. Examples include your text, reference books, software and equipment manuals.
- 7. Appendix:** Attach all original data sheets and computer printout from the experiment.